

(19) World Intellectual Property Organization
International Bureau



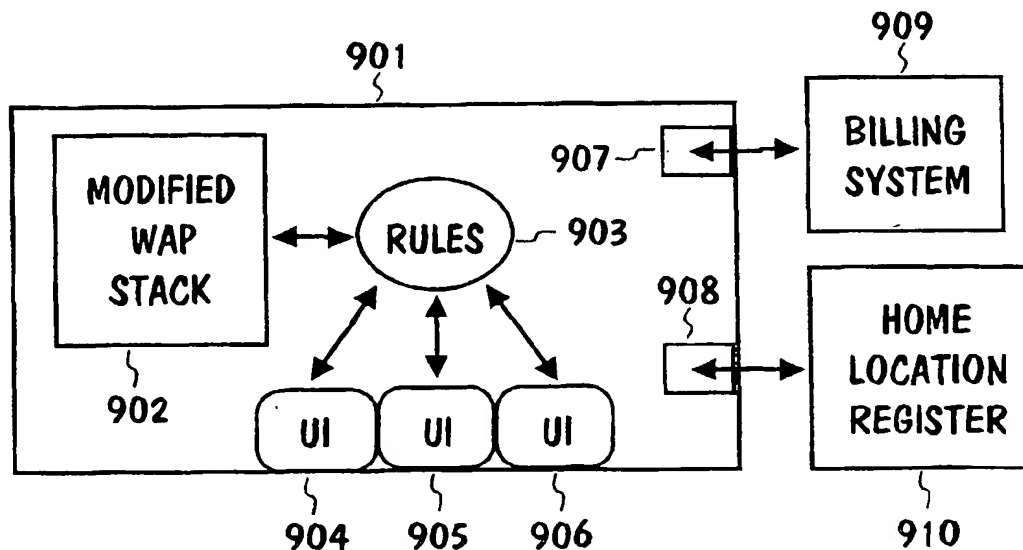
(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 03/105416 A1

- (51) International Patent Classification⁷: **H04L 12/56**, 29/08
- (21) International Application Number: **PCT/FI03/00455**
- (22) International Filing Date: **10 June 2003 (10.06.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
20021113 **10 June 2002 (10.06.2002)** **FI**
- (71) Applicant (for all designated States except US): **FIRST HOP OY [FI/FI]**; Tammasaarenlaituri 3, FIN-00180 Helsinki (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **KALLIOLA, Janne [FI/FI]**; Tornitasa 7 A 5, FIN-02120 Espoo (FI). **KHACHTCHANSKI, Viktor [RU/FI]**; Pääskylänrinne 6 A 13, FIN-00500 Helsinki (FI).
- (74) Agent: **PATENT AGENCY COMPATENT LTD.**; Hämeentie 29, 4th Floor, FIN-00500 Helsinki (FI).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **METHOD AND APPARATUS FOR IMPLEMENTING QOS IN DATA TRANSMISSIONS**



(57) Abstract: A method and apparatus for implementing QoS levels in data transmissions in a communication network. The apparatus is a terminal, e.g., a WAP phone, or a server apparatus comprising a HTTP server and a WAP gateway, for example. The method is based on certain modifications in a communication protocol stack. The modified stack uses a queue for prioritizing transmissions. At least the handling of the queue is located in the modified stack. The queue may or may not be located in the modified stack. The modified stack may determine the QoS level of a packet by itself, or a separate software performs the determination and transmits the QoS level of the packet to the modified stack.

WO 03/105416 A1